

**I Claim:**

1. A swing head structure of a wrench with two kinds of torque output mainly comprises;

5 a ratchet head structure which by its rotating mechanism and control, allows the wrench to rotate idly, change its rotating directions, or to make said ratchet head to rotate in one direction speedily by back and fro rotation of said wrench;

10 a swing head structure, which a sleeve socket having a protruded ear and a transmission gear disposed inside to transmit two ring-shaped gears disposed inside of said sleeve socket, said protruded ear having a medium gear disposed on its one side to transmit a gear of a handle structure and a gear of said sleeve socket;

15 a shaft structure, a protruded ear is disposed on its front part for sleeving on a protruded ear of said sleeve socket, said protruded ears can be pivotally rotated, a transmission gear is disposed inside said handle structure to mesh with said medium gear, said transmission gear is connected to a handle part, said handle part having a long shaft sleeved on its outer  
20 circumference, accordingly, said wrench can adjust swing angle and also features torque of conventional wrench, or can adjust swing angle and also can speedily rotate said handle part, its adjusted angle does not affect the two kinds torque output.

25 2. A swing head structure of a wrench with two kinds of torque output as claimed in Claim 1, said protrudes ear of said sleeve socket having a plurality of concave dots disposed on its

on side, a steel ball and a switch-control for controlling said steel ball are disposed on one side of said protruded ear of said handle in corresponding to said concave dots.

5        3. A swing head structure of a wrench with two kinds of torque output mainly comprises;

         a ratchet head structure which by its rotating mechanism and control, allows the wrench to rotate idly, change its rotating directions, or to make said ratchet head to rotate in one direction  
10        speedily by back and fro rotation of said wrench;

         a swing head structure, which a sleeve socket having a protruded ear for sleeving a protruded ear of a handle, and a transmission gear is disposed inside to transmit two ring-shaped gears also disposed inside of said sleeve socket, said protruded  
15        ear having a medium gear disposed on its one side to transmit a gear of a handle structure and a gear of said sleeve socket;

         a shaft structure, a protruded ear is disposed on its front part, said protruded ears can be pivotally rotated, a transmission gear is disposed inside said shaft structure to mesh with said medium  
20        gear, said transmission gear is connected to a handle part, said handle part having a long shaft sleeved on its outer circumference, accordingly, said wrench can adjust swing angle and also features torque of conventional wrench, or can adjust swing angle and also can speedily rotate said handle part, its  
25        adjusted angle does not affect the two kinds torque output.

         4. A swing head structure of a wrench with two kinds of

torque output as claimed in Claim 3, said protruded ear of said shaft structure having a plurality of concave dots, said protrudes ear of said sleeve socket having a steel ball and a switch-control for controlling said steel ball are disposed on its side in  
5 corresponding to said plurality of concave dots.

5. A swing head structure of a wrench with two kinds of torque output as claimed in Claim 1 or 3, said sleeve socket of said swing head structure having a protruded piece which a  
10 second compartment is disposed on it for placing a medium gear, said sleeve socket having a transmission gear inside for transmitting two ring-shaped gears which are also disposed inside said sleeve socket, said medium gear inside said second compartment of said protruded piece transmits a gear of said  
15 shaft structure and a gear of said sleeve socket, said protruded ear disposed at the front end of said shaft structure is for sleeving onto said protruded piece of said sleeve socket, said protruded ears are bolted and can be pivotally rotated, a transmission gear is disposed inside said shaft structure to mesh  
20 with said medium gear, said transmission gear is connected to said handle part, said handle part having a long shaft sleeved on its outer circumference.

6. A swing head structure of a wrench with two kinds of  
25 torque output as claimed in Claim 1 or 3, said ratchet head having two placing troughs for placing two locking pieces, and a hole for inserting an initiate piece, said locking pieces each

having a positioning trough on its inner end, said initiate piece having a positioning ball and an elastic element in corresponding to said positioning trough, rotate and adjust said initiate piece by a wheel to make said locking pieces to swing in  
5 an opposite direction, said locking pieces each having a ring-shaped gear wheel disposed on its outer part, said ring-shaped gear wheels each having a ratchet teeth for meshing in opposite transmission directions with an inclined wheel disposed on top of a transmission shaft, said ring-shaped gear  
10 wheels each having an inner ratchet teeth, while said locking pieces each having an outer ratchet teeth on its outer end.

7. A swing head structure of a wrench with two kinds of torque output as claimed in Claim 1 or 3, said ratchet head  
15 having a switch-control, two elastic elements and two steel balls and springs, said elastic elements can limit a circular rod, while said steel balls and springs are pressed against a piece with ratchet teeth, said ratchet head also having a ratchet teeth disposed on its side and ring-shaped gears disposed on its upper  
20 and bottom ends.